

**APPARATUS AND METHOD FOR THREE-DIMENSIONAL
RELATIVE MOVEMENT SENSING**

Abstract of the Disclosure

An apparatus for sensing three-dimensional relative movement includes a
movable motion sensor including a first and a second two-dimensional array of
5 photo detectors. At least one lens directs far-field images onto the first and the
second arrays of photo detectors. The sensor is configured to generate digital
representations of the far-field images and to generate three-dimensional relative
movement data based on the digital representations of the far-field images. The
movement data is indicative of motion of the sensor in three dimensions.

10